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Cultural Landscape, Urban Settlement and Dweller's Perception: A Case Study of a Vernacular Village in Northern Thailand

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Abstract

This research attempts to investigate factors affecting the formational pattern of cultural landscape and the formation of urban settlement resulting from the shifting communal needs in the historical and theoretical facets. It endeavors to elucidate the linkages between the behavioral-functional solution and the physical/spatial settings of cultural landscape. The research indicates that urbanization affected the formation of urban settlement and the changes in dwellers' perceptions. Perception of the local dwellers should be the prime factor to be considered in the planning and management of urban settings.

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1. Introduction

The spatial pattern of human settlement was determined and readjusted not only by the daily human needs, but also by their social norms and cultural settings (Nunta & Sahachaisaeree, 2011). The locale and orientation of structural design were so developed and transformed in accordance with the existing built and natural environments. The physical setting of cultural landscape thus differed in accordance with their contextual, socio-cultural, and physical surroundings (Rapoport, 1992).

The research is yearning for the utilization of resultant to identify the process by which the pattern of vernacular settlement explaining the significant of social identity and livelihood in the past could be beneficial to explain the current social dynamic in the modern urban community. Meeting the community members' basic needs alone would be inadequate without signifying their socio-cultural necessities and their inherited identities.

2. Methodology

There are 2 objectives in this study that includes: to study the dynamic of vernacular house influencing on the transformation process of urban settlement and cultural landscape; and finally, to explain the perceived process and response of local people towards meaning and changes of cultural landscape.

An integration of quantitative and qualitative approaches was applied to reveal the behavior of relevant users in the built environment. Empirical data were complied by means of questionnaire survey and in-depth interview with sample subjects responding to cultural landscape. Research methodology comprises data from both secondary and primary sources.

Two types of survey techniques—survey and structured questionnaire—were utilized to obtain two types of relevant information—physical and Dweller's perception and responses. Both checklist and mapping techniques were employed together with the visual survey in the areas under studied to collect the physical settings, daily activities, and other spatial behavior. The area of this study was in the northern region of Thailand. Traditional communities in the northern region of Thailand have long been characterized as livelihood with socially cohesiveness and environmental conscious.

3. Literature Review

Theoretical basis of the study is a subsection of the main literature review of the whole research which only showed here the three main approaches: the urban form and landscape of a settlement, the conceptualization of cultural landscape, and the taxonomy of cultural landscape.

3.1. *The urban form and landscape of a settlement*

The urban form and landscape of a settlement includes such tangible elements as the urban pattern, architectural character and built and natural form configurations. Intangible elements are defined solely on the underlying basis of the economic base, political system, and religious factors (E.Saleh, 2000).

The interaction of physical structures and their built environment should not be treated separately from human behavior. The built environment is a function of architecture, an integral part of the design problem to be solved, even though the planning and urban design processes are intangible activities.

A more recent approach to describing urban spatial patterns is based on the idea that they resemble fractals, geometric figures which display ever-finer structure when viewed at finer resolutions. Mathematically, a fractal is the limiting result of a process of repeatedly replicating, at smaller and smaller scales, the same geometric element (Anas, Arnott and A. Smal, 1998).

3.2. The conceptualization of cultural landscape

A cultural landscape is defined as "a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values." Cultural landscape is expressed by spatial order, temporal, meaning, communication, activity, interaction, territory, cue, transforming, and systematic control base on completely idealism concept practice (Rapoport, 1969, 1992). Cultural landscapes are combination between manifest and element of nature that must be studied together, including considering settlement system, and the relations between location and housing (Rapoport, 1996).

Moreover, geographer identified cultural landscape as the trace and evidence of the changing of land, topography and environment made by men from activities in their community lifestyle or ethnography that appear both in concrete and abstract characteristics. These activities are learnt and transfer from generation to generations. They have been developed from the ancestors to their offspring. They are both intangible and tangible -- the perceived atmosphere is the image from this community which may be called as the identity of the area that can be perceived from picture, sound, smell and lifestyle of local people in that area (Rapoport, 1996, 1998).

3.3. The taxonomy of cultural landscape

Taxonomy of cultural landscape can be divided into many types. UNESCO categorized cultural landscape into three types. First, the landscape that is intentionally designed and created by men such as garden, park, etc. Second, the landscape that has evolved as a result from changes in society, economy, administration, religion, and belief. Finally, the landscape is involved in religion, art and culture or natural elements. Moreover, cultural landscapes are divided as historic sites, historic designed landscape, historic vernacular landscape and ethnographic landscapes (Birnbaum, 1992).

4. Results and Discussions

The research result found that the ways of life and local culture are still maintained. Characteristics of the building space and formal pattern had been transformed in accordance with the modern life style, but some traditional style still remains without any improvement. Different types of architecture are found in the study areas. The original buildings are entirely made from wood.

Building pattern is usually a one-story house with high basement which area was used for storing agricultural equipments or for leisure activities (Fig. 1). However, the current changes of lifestyle and local climate as well as the smaller family size and occupation changes lead to the transformation of housing (Nunta & Kunlaya, 2005). The basement is so transformed and rebuilt by new material and subdivision to accommodate activities such as storing unused material and garage (Fig. 2).



Fig. 1. Typical one-story houses



Fig. 2. Transformation of housing characteristics in accordance with modern functionality

Results from the housing survey found four types of building pattern in accordance with building material and housing structure; 1) Typical one-story houses; 2) Transformed houses which interior space was adjusted and adapted basement as functional area 3) Contemporary houses; 4) Modern houses which used new material such as concrete and tiles. There are one storey and two-storey. Units of houses were divided to two types; a) more than 30 years and b) less than 30 years. Recent road construction further brought about linear extension and atypical physical development. Houses were built along the road ruined the typical pattern of settlement. Spatial settings and urban pattern were gradually changed.

The results from questionnaires found that both cultural landscape and physical area had affected on the perception and response of dwellers towards cultural landscape changes. Several factors determine the local people's perception towards the landscape changes. Length of stay has been among the major factors affecting perception regarding environmental changes. Those who are originating from the area usually possess a stronger sense of belonging (sig.0.046). Respondents' occupations and educational level are also found significant factors determining perceptual differentiation regarding changes in cultural landscape (sig.0.042, sig. 0.021). Level of participation in local cultural tradition and ritual practice had

also a different opinion toward physical changes. Level of income also had a significant impact on cultural changes (sig.0.043) (Table 1).

Table1. Perception and response to cultural landscape

Variable	Perception& Attitude	Sig.
Length of stay	perception regarding environmental changes	0.046*
Occupations	regarding changes in cultural landscape	0.042*
Educational level	regarding changes in cultural landscape	0.021*
Level of participation in local cultural tradition and ritual practice	opinion toward physical changes	0.043*
Income	cultural changes	0.043*

* $P < 0.05$

5. Conclusion

Urbanization had affected formation of urban fabrics as well as changed the dweller's perception. Recent road construction further brought about linear extension and atypical physical development. Houses that were built along the road ruined the typical pattern of settlement. Cultural identities were proved to determine the origin of cultural landscape. Perception of the local dwellers was found affected the response process in both changes in cultural landscape and physical appearance of the settlement.

Perception of dwellers concerning cultural landscape should be the prime factor to consider in the planning and management of urban settlement in any particular area where physical landscape is bound to be transformed. Moreover, the community management should include the education of local people about culture conservation to achieve consciousness and awareness as based on surveys and opinion in the summary.

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